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ABSTRACT

Presented are the proceedings of a workshop on preparing personnel to effectively intervene in the development and education of Mexican-American hearing-impaired children (0- to 4-years-old). Participants (who were professionals in such disciplines as psychology, medicine, and education) investigated four main topics (examples of conclusions are in parentheses): the knowledges, understandings, and competencies needed by the mediators to intervene effectively (the principle area in which the hearing-impaired child presents problems is communication); the responsibilities and level of preparation desired for the intervener (mothers or surrogate mothers need to function as identifier, coordinator, interpreter, and evaluator); personnel training programs (personnel must be recruited from the Mexican-American culture); and areas amenable to evaluation (complete evaluation requires assessment for every procedure and person who has contact with the hearing-impaired child). The final topic is a compilation of the findings and explores implications for change in interdisciplinary approaches, administration of service programs, legislation, funding, advisory committees and cooperative councils, research, and program schema. Five appendixes are provided including information on goal setting considerations. (SB)

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One final word concerning the format and style of these proceedings: extreme effort was exerted to preserve the sense and intent of the individual reports. This preservation has resulted in an inconsistency in editorial style which is regrettable but seemed inescapable.

June Grant, Director
Education of the Deaf

September 5, 1973

PROCEEDINGS OF A WORKSHOP ON THE PREPARATION OF PERSONNEL IN EDUCATION OF BILINGUAL HEARING-IMPAIRED CHILDREN, AGES 0-4

PREFACE

This workshop evolved from the concerns of teacher educators and teachers of hearing-impaired children from Mexican-American backgrounds. These concerns center around the fact that the language in the homes of these children is Spanish, and the language of the classroom is English; the children tend to enter school programs at six to ten years of age rather than at a preschool age. In addition, the hearing impairment is often not identified or evaluated, and appropriate amplification often has not been provided. Thus, the handicap imposed by the hearing impairment is compounded by late entry into educational programs and the bilingual/bicultural background.

In an effort to ameliorate these problems, a proposal to develop a program to prepare personnel to intervene in these children's lives at a very early age was submitted to the Division of Training Programs, Bureau of Education for the Handicapped, Office of Education, by Trinity University in April, 1971. In order to examine all the parameters involved in such early intervention, the Bureau sponsored this workshop, realizing that personnel other than teachers could be effective interveners: for example, social workers, visiting nurses, phy-

sicians, teacher aides, community aides, etc. It should be emphasized that the primary concern of the workshop was the preparation of various types of personnel, not curricula or methodologies appropriate to the target population.

The purpose of this workshop was to delineate the considerations which must be incorporated in order to prepare personnel who can effectively intervene in the development and education of the 0-4 year-old child with diagnosed hearing impairment to a sufficient degree to interfere with normal development of language and cognitive processing. The primary concern was those problems imposed on the child in terms of development of cognition and language due to the interaction between impairment of hearing and bilingualism/biculturalism.

The participants in this workshop represented one or more parameters involved in the growth and development of young children: psychology, linguistics, medicine, speech pathology and audiology, education, and education of the hearing-impaired. They were nominated by a planning committee which met at Trinity University, May 17-18, 1972, to lay the groundwork for the workshop. It was the intention of the planning committee that the statement of topics for discussion which were developed by this committee would be as open-ended as possible, with the hope that the input of the participants would be maximal. The editors have adhered to the outline format of the workshop in an effort to preserve the consensus of the groups and to facilitate the extraction of salient points. The chapter introductions, summaries, and conclusion are editorial additions.

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WORKSHOP FORMAT AND OUTLINE

The topics for discussion were divided into five major concerns. Four of the five main topics were divided into five subtopics, and each subtopic was investigated by a group of six participants. The fifth main topic was examined by all participants in the small groups. The membership of each group was composed of representatives from all the disciplines, so far as was possible. These proceedings represent the findings of these subgroups in a distilled form. The last main topic is a compilation of the reports from all the groups.

TOPIC I—Define the Areas of Knowledge Requisite to Effective Intervention for the Preparation of Personnel.

1. How the hearing-impaired child from the bilingual/bicultural background establishes communication with his environment.
2. Effect of bilingual/bicultural environment on cognition (sensory-motor processing) in the hearing-impaired infant.
3. The interrelationship of cognitive processing with the social, emotional, and motor development of the hearing-impaired child in a bilingual/bicultural environment.
4. The effect of bilingual/bicultural environment combined with hearing impairment on the pacing of the developmental sequence with reference to critical periods for acquisition.
5. The effect on the bilingual/bicultural family of the problems imposed by the child with hearing impairment.

TOPIC II—Define the Roles of the Interveners Including Tasks and Preparation.

1. Family constellation as interveners (areas of intervention).
2. The initial informant: the professional representative of the diagnostic agency who defines the problem in the initial discussion with the parents.
3. Representatives of referral resources and supportive serv-

ices (health and social services, community agencies, welfare, schools, etc.).

4. Home teaching personnel (continuing and longitudinal guidance and direct educational services).
5. Longitudinal assessor (interrelationship of internal and external assessment on a continuum).

TOPIC III—Formulate Broad Principles for the Development of Preparation Programs (Essential Areas—Not Guidelines, Not Programs), Meeting the Needs for Personnel as Defined in II.

1. Responsiveness to demand. Program developers will need to meet the demand for preparation of new types of personnel as identified in II.
2. Programmatic requirements. Define additional skills, competencies, and knowledges needed by personnel to serve bilingual/bicultural hearing-impaired children and their families.
3. The interfacing of new personnel preparation programs with existing ones.
4. Integration of preparation programs with the existing community resources: inclusion of personnel external to educational agencies preparing personnel, health and social services, schools, welfare, community agencies, etc.
5. Responsiveness of preparation programs to new program concepts and current research findings (advisory committees, on-going evaluation, etc.).

TOPIC IV—Specify Areas for Evaluation (Personnel Preparation Programs and Service Programs).

1. Preparation program (higher education) as evidenced by the performance and attitudes of the intervener.
2. Alternative programs (non-university/college) for the preparation of personnel including specific parameters of these programs.
3. Interaction of intervener with family constellation.
4. Longitudinal assessment of developmental sequence in children served by the personnel prepared by programs.

5. Impact of preparation programs on community (including the community's acceptance of responsibility for programs).

TOPIC V—Delineate Implications for Change.

1. Interdisciplinary approaches
2. Administration
3. Legislative needs
4. Funding
5. Advisory committees and cooperative councils
6. Research
7. Schema for programs

TOPIC I

DEFINE THE AREAS OF KNOWLEDGE REQUISITE TO EFFECTIVE INTERVENTION FOR THE PREPARATION OF PERSONNEL.

The purpose of these definitions is to determine the knowledges, understandings, and competencies needed by the interveners in order to intervene effectively.

In this section, the participants were to define and delineate the areas of knowledge requisite to effective intervention for the preparation of personnel who would be working with the young bilingual/bicultural hearing-impaired children. Problems that the child faces in establishing communication with his environment were to be explored. Difficulties in establishing cognitive skills were also to be examined in light of the bilingual/bicultural environment. The interrelatedness of a bilingual/bicultural environment and hearing impairment was to be examined to determine its effect on the child's developmental growth and family interaction.

1. How the hearing-impaired child from the bilingual/bicul-

tural background establishes communication with his environment.

The participants agreed with the basic philosophy that the nature of intellectual, linguistic, and social development presupposes a complex interaction between the child and his environment. The ability of the child to act on and to receive feedback from his environment is of equal importance to the input he receives from others. Therefore, the child must be given skills to express effectively his needs and wants in an understandable manner to people in his environment.

Interveners must appreciate the fact that a child develops skills that enable him to accommodate and master his environment and that these skills will be extinguished if they are not reinforced. For example, very practical suggestions to the parents for responding to the child's output can facilitate the development of oral or other verbal expressive skills.

It should be emphasized that communication per se is not an end in itself; it is a means by which the child is able to establish contact with his environment and reach his potential. Individuals working with hearing-impaired children must constantly search for that elusive trigger by which the child develops his language at the earliest possible period and comes to assume some measure of control over his environment. In addition to the parents' very real need to have means available for controlling the behavior of the child, they should have means also by which they can effectively express positive aspects of affect and stimulate intellectual development.

2. Effect of bilingual/bicultural environment on cognition (sensory-motor processing) in the hearing-impaired infant.

In considering development of these hearing-impaired infants, that is, those functionally impaired in the development of communication through normal channels, the participants emphasized the importance of understanding developmental sequences, their invariance, and the expected

variations in rate. Thus, it seemed necessary that emphasis be given to understanding normal development of cognition and its critical antecedents and the onset of language. In conjunction with an understanding of early cognitive development, it will be necessary to examine the effects of cultural variations on the rate and content of development.

The participants recognized that, as a result of cultural variations, there would be concomitant variations in parent expectations and in the types of behaviors they reinforced. Clearly this implies an understanding of the culture, its history, current attitudes, and the perceptions of the peoples' needs and expectancies for their children.

3. The interrelationship of cognitive processing with the social, emotional, and motor development of the hearing-impaired child in a bilingual/bicultural environment.

Significant Issues

(1) With the hearing child, cognitive processing develops from family interaction.

(2) Acquisition of concepts related to hearing impairment as a function of:
   a. Degree of impairment.
   b. Nature of impairment.
   c. Age of onset.
   d. Age at which remediation, habilitation were initiated.
   e. Nature of habilitative program.

(3) Environment may be monolingual (other than English), or bilingual (may be bilingual only in specified situations or with specified individuals), or may be complicated even further by additional codes of language of signs, or may be limited only to language of signs.
   a. Cognitive stimulation (perceptual-conceptual) may be tied to quality and quantity of linguistic choice and selection of communication mode as a function of familial preference.
   b. Prestige factors related to community and fa-

milial attitudes toward minority and majority languages and the roles cultures may dictate.

c. The attitude of the family and subject to each language and culture, and it may be basic to the choice of the family and influenced by the attitude of the majority culture toward the minority culture.

(4) Availability of broad-based experience within family and community which provides adequate stimulation level for conceptualization, growth, and development.

(5) Option for each child and family:

a. Monolingual

b. Bilingual—selective use or general use.

c. Monolingual start—bilingual transfer.

(6) Choice may vary according to:

a. Degree and kind of hearing impairment.

b. Prelingual or postlingual hearing loss.

c. Parental and child's attitudes toward each language and culture.

d. Similarity or differences between languages.

e. Community pressures to conform to a particular model.

(7) Increase in feedback from child to encourage familial interaction.

4. The effect of bilingual/bicultural environment combined with hearing impairment on the pacing of the developmental sequence with reference to critical periods for acquisition.

(1) Alterations in the pace, content, and ordering of concepts as a result of language differences should be anticipated.

(2) There are predictable and identifiable stages in the typical developmental process in the age period from 0-4, e.g., undifferentiated cry, differentiated cry (pain, hunger, boredom), babbling (undifferentiated sounds), babbling (differentiated sounds), manipulation of symbol system, etc.

The combination of the hearing impairment, high

incidence of poverty, and Spanish language in the English-speaking community can impact significantly on the child's developmental sequence. Four specific effects may be predicted from the above combination:

a. Greatly diminished language, cognitive, and social development will occur in cases of severe hearing impairment if other cultural factors (e.g., economic, educational) are not actively dealt with over time.

b. The child with help (intervention) will go through the typical developmental phases, but there will be some differences in his achievements.

c. The pace of the child's progress through the developmental phases with intervention can be predicted as being slower than that of the nonhearing-impaired child.

d. The child's pace through the developmental phases is going to be directly related to the quality of the intervention provided, but such intervention may not be totally corrective. Familial and other social factors may be as significant as intervention in developmental progress.

5. The effect on the bilingual/bicultural family of the problems imposed by the child with hearing impairment.

The nature of the accommodation required of the bilingual/bicultural family to the problems of the hearing-impaired child.

The effect of the problems of the hearing-impaired child on the bilingual/bicultural family are not known. There is need to investigate this effect in the Mexican-American culture in general and in each Mexican-American family in particular. In order to study these areas, the intervener should have the following abilities:

A. Competencies in:

(1) Techniques and strategies for investigating cultural differences.

(2) The techniques and strategies for obtaining information from the family.
(3) Observing home situations and interactions to determine the reaction of the family to the child with impaired hearing.
(4) Techniques and strategies for teaching mothers to train their children.
(5) The language of the target population.

B. General background in:
(1) The culture (religious/social/language) of the Mexican-American family and how it differs from other cultures with respect to:
a. Values regarding education.
b. Cohesiveness of the family and concepts regarding the family (e.g., protectiveness).
c. Relation of handicapping problem to religious beliefs.
d. Effects of birth order and family size on the hearing-impaired child's development; the effect of many siblings.
e. Matters of child-rearing of the nonhandicapped child.
(2) Normal language development: the effects of hearing impairment in a monolingual family, and the effects of bilingualism on the language development of the nonhearing-impaired child.

C. Specific knowledge of:
(1) Conditions that need to be evaluated in the home relating to the hearing-impaired child:
a. The predominant language used in the home; the specific language used by the various family members; the language(s) spoken to the hearing-impaired child.
b. The quality and kinds of perceptual motor, social, emotional, and other experiences that have been provided in the home to the hearing-impaired child.

c. The interactions among family members with the hearing-impaired child.
d. The opportunities for socialization of the hearing-impaired child.
e. The effects of other hearing-impaired family members of the family constellation.

(2) Education and social status of the family.

SUMMARY

In this first topic the participants attempted to define and delineate the areas where the hearing-impaired child in this bilingual/bicultural setting presents serious problems. One of the principal areas identified was communication. As the child first attempts to establish communication with his environment, his efforts must be reinforced so that he will develop the skills necessary to make satisfactory contact. But as he makes continued contacts with the environment in an effort to control it, the parents are in need of means of controlling the behavior of the child. Great skill is required in discerning the responses that should be reinforced, and parents should be encouraged to promote the affective aspects of development.

Another problem area discussed was development. Both the hearing impairment and the bilingual/bicultural environment were judged as influencing the cognitive development of these children. Parents' goals and expectations were considered to be the prime consideration in providing remedial services. Issues influencing cognitive processing and its relationship to social, emotional, and motor development were identified: the nature of the hearing impairment, its onset, its severity, the choice of language or languages of the home, the reasons for this choice, and the amount of cognitively stimulating experiences available within the environment. Variations from the dominant culture in pace, content, and ordering of cognitive development should be anticipated. These variations can be attributed to bilingualism/biculturalism, hearing impairment, and the high incidence of poverty. The child will probably go through the same developmental stages, but the progress may be slower, and the content may be greatly diminished. Depend-

ing upon the quality of the intervention program, this rate can be accelerated to a lesser or greater extent.

The effect of the hearing-impaired child on the bilingual/bicultural family is not known, but personnel intending to provide services must have a general background in the Mexican-American culture and normal language development, specific knowledge of conditions in the home and the education and social status of the family, and competencies in investigative techniques, teaching, and the language of the culture.

TOPIC II

DEFINE THE ROLES OF THE INTERVENERS INCLUDING TASKS AND PREPARATION.

The responsibilities and level of preparation desired for the interveners were discussed in this section. Problems inherent in the initial identification of young hearing-impaired children were to be examined in relation to the individual making this identification. The professional preparation desired of the initial informant, as well as that expected of all personnel intervening with the child and his family, was to be listed. Means of assessing the effectiveness of the intervention program on a longitudinal basis were to be presented.

1. Family constellation as interveners (areas of intervention).

   Primary emphasis was placed on the mother or mother figure as the key member in the family constellation. Tasks and competencies were limited to the headings of mother as identifier, coordinator, interpreter, and evaluator. Other maternal tasks common to the needs of all 0-4 year-old children were assumed to be met and outside of the specific

role definition as it applies to language and cognitive development.

The assumption was made that parents need assistance, guidance, and education in becoming effective interveners for the 0-4 year old hearing-impaired bilingual/bicultural child.

Specific parent training and information programs might need to be developed to meet specific needs. Parent involvement in such program development is of paramount importance.

It is recommended that preparation programs geared to family members be spearheaded by one individual with the support of the multiple professionals who will provide services for the family. It is unreasonable to expose parents to conflicting theories, solutions, and programs.

Parent programs need to provide practical, useful solutions and services as well as general information. Parents, as well as the child, need to be reinforced in their program efforts.

These programs need to be easily accessible and adaptable to parent and family schedules. They need to be designed to the level of appeal, understanding, and acceptance of the intended parent audience.

A. The "Mother" as identifier needs the following competencies:
   (1) The ability to carry out testing procedures in order to determine presence of a gross hearing problem.
   (2) Alertness to deviations from normal hearing behavior.
   (3) Selection of some type of referral assistance for help beyond her capabilities.

B. The "Mother" as coordinator needs to be:
   (1) Able and willing to coordinate out-of-home with in-home programs. This includes programs of the following:
      a. Medical
         1. Diagnostic

2. Prophylactic
3. Therapeutic

b. Educational
c. Religious
d. Recreational
e. Social

(2) Able to organize and encourage family participation in specific child stimulation activities.

C. The "Mother" as interpreter must be able to:

(1) Interpret the nature of the handicap to appropriate general public, family, interveners, and the child.

(2) Must be able and willing also to interpret the child's developmental status and limitations when and if such interpretation is beneficial to the child's development, adjustment, and acceptance.

D. The "Mother" as evaluator will have to:

(1) Judge the child's developmental status and progress within specific programs.

(2) Evaluate the child's fulfillment of parental, professional, and own personal expectations.

(3) Evaluate appropriateness of new learning opportunities.

(4) Identify and evaluate potential damaging influences to the child's psychic, physical, and social well-being.

(5) Evaluate possible impact of interveners and their programs on the child and family.

Other members of the family constellation have important roles. The special importance of the father role is fully recognized. Mexican-American families have a strong orientation to a patriarchal society from an authoritative standpoint. The participants felt that the father needs to identify with all roles listed for the mother. Involvement of the father as an active participant in each of these roles is desirable. The extent of daily involvement needs to be in balance with that of the mother, other members of the family, and other interveners.

Mexican-American families frequently have representatives of several generations, such as grandparents, spinster aunts, brothers, and sisters. The relationship of family members serves as a model to the specific child; the role of these family members in the home program for the hearing-impaired child will vary with each family, be they program initiators or reinforcers.

2. The initial informant: the professional representative of the diagnostic agency who defines the problem in the initial discussion with the parents.

The definition of the problem of hearing impairment to the family of the child is the beginning of a long association between specialists and the family. Therefore, the importance of the relationship that is established by the initial informant with the family cannot be underestimated. The initial interview may take more than one visit and will vary with the needs of each family.

The components of this aspect of the total program are threefold. The first concern is:

A. *The tasks or purposes of the initial interview* are:
   (1) To communicate to the parents the effects of hearing impairment on the child.
   (2) To describe the needs of the child and to describe the home environment appropriate to satisfying these needs.
   (3) To describe the possible education goal expectations for the child with impaired hearing.
   (4) To communicate to the parents the importance of participating with specialists in following recommendations.
   (5) To provide understanding and empathy with the parents as they accept the problem.

B. The second aspect concerns the *methods for accomplishing the purpose.* Some suggestions are:
   (1) To provide opportunities for the parents to communicate with parents of children who have similar and other handicaps.

(2) To give parents the opportunity to observe the diagnostic process in order to provide them with insight into the nature of the problem.
(3) To provide opportunities for parents to visit rehabilitation agencies.
(4) To utilize a person the family trusts for helping them understand and accept the problem.
(5) To coordinate activities with other agencies and professional persons.
(6) To utilize visual aids (films, materials, etc.) where appropriate.

C. The necessary *preparation of the initial informant* would require:
(1) Personal qualities and background:
a. To be a speaker of the native language of the parents and, if possible, to be of the same ethnic origin.
b. To possess sensitivity and compassion for the problem of the family of the hearing-impaired child.
c. To have the skills for handling the emotional impact (feelings of guilt, trauma, helplessness) of the diagnosis on the parent.
(2) Academic qualifications:
a. No specific professional area is preferred. This may vary from agency to agency.
b. To have knowledge of hearing impairment, the needs of the hearing impaired, the educational processes involved in rehabilitation.
(3) Other areas of competence:
a. Knowledge of community resources, agencies, and schools.
b. Knowledge of financial assistance available for families.

3. Representatives of referral resources and supportive services (health and social services, community agencies, welfare, schools, etc.).

The participants felt that it was difficult, if not impos-

sible, at the present time to define the roles of the interveners adequately. Because of the uncertainty of the type of input to be made by various professionals dealing with the hearing-impaired child and his family, it was felt that any arbitrary attempt to define these roles for a number of professionals would be unsuccessful and inappropriate.

At present, the potential for overlap, confusion of roles, and conflict is tremendous. Definition of roles would depend to a great extent on the individual community resources and would vary greatly from community to community.

The definition of roles of interveners has to be at least partially determined by representatives of the agencies or professions themselves. Although each profession may perform a specific function, it should also have a voice in the development of services for the child across the spectrum from identification to assessment to intervention.

Possible roles and tasks:

(1) Parent-child advocacy.
(2) Parent education and the reverse—learning to utilize the parent as the educator of the intervener.
(3) Needs assessment of the community.
(4) Provision of environmental support for development of cognition, communication, etc.
(5) Education for use of amplification equipment.
(6) Infant education and peer education.
(7) Public information and case finding via television and other mass media.
(8) Interface with deaf members of the community.
(9) Dissemination of public health information for prevention of diseases and conditions which precipitate hearing loss to churches and their organizations, neighborhood leaders, civic and social groups, midwives, etc.
(10) Development of information on program "accountability" for leverage in obtaining financial and other support for programs.

4. Home teaching personnel (continuing and longitudinal guidance, and direct educational services).

The discussion was predicated on the assumption that stress should be placed on the process of intervention rather than on the intervener as a person. Regardless of who does the intervention, the family at all times has the right to control the intervention strategy. Decisions about the child should be made by the family, guided by person or persons qualified to assist in decision-making.

Qualifications, both innate and acquired:

A. Innate characteristics necessary to work within the framework of the process are several, and they can be viewed as criteria in the initial selection of personnel.

(1) Person needs to be mature and without personality deviations which limit effectiveness.

(2) He should have creditability within the community and, in most cases, should be from the culture itself.

(3) He must be familiar with the customs, values, and mores of the community which he is to serve.

(4) He must be fluent in the languages of the community.

(5) He must have respect for the individuals he serves and, at all times, demonstrate observance of a code of ethics which dictates the ability to handle confidential information professionally. This is considered essential to the continuation of a productive working relationship.

(6) He needs to be adaptable and able to function in a variety of settings as an active member of a team.

(7) He may be in a position of defending the family against change and, hence, must be able to decide when to hold a position.

(8) His role may be that of an ombudsman in aiding the family in coping with bureaucratic red tape.

This requires a nonadversive posture with particular skill in negotiation.

B. Acquired characteristics—the person who interacts with the family needs to be knowledgeable in certain areas:
   (1) Fundamental principles of child development.
   (2) Language development.
   (3) Hearing.
      a. Its role in language acquisition.
      b. The effect of hearing loss,
         pre- and post-lingual acquisition.
      c. Nature of hearing losses and remediation, if any.
         1. Medical
         2. Acoustic (hearing-aid care and use)
   (4) Environmental influences upon development: social, linguistic, cognitive, etc.
   (5) Strategies appropriate to effect change within environment.
   (6) Since he must "tune in" to parent, child, and community, he needs desirable listening techniques.
   (7) Interrelating is his task, hence, interaction is a skill he needs. He needs to act as an intermediary for an agency effecting change and, therefore, skill in this capacity is desirable.
   (8) Needs to be competent in setting realistic behavioral objectives, means of achieving them, and techniques for evaluating outcomes.
   (9) Needs to communicate with the deaf of the community and to be accepted by them, e.g., adults, deaf parents, etc.
   (10) Should be able to handle group discussions and use creditable counselling techniques with some acquaintance with social work discipline.
   (11) Should be cognizant of roles of health, social, and other agencies with the ability to seek appropriate help when and where needed.

Patterns for intervention:

A. Alternative routes for intervention have developed within this country and Europe. However, the nature of the intervention will in a large part be a decision and a function of the sponsoring agency.
   (1) Professionals, especially teachers of the deaf, are the models usually in programs associated with hearing impaired.
   (2) Paraprofessionals are the models frequently in bilingual/bicultural intervention programs.
   (3) Volunteers, while not a model, are sometimes used in agencies to carry on the task of prevention and amelioration of problems, e.g., Head Start, Home Start, etc.

B. Professional models:
   (1) Teacher of the deaf.
      a. Tutorial in: clinical setting, home demonstration center, child's home, school setting.
      b. Teacher: counselor model in above settings. Person originally a teacher who has received additional education in social work discipline.
   (2) Social worker in above settings.
   (3) Audiologists usually in clinical settings.

C. Paraprofessional models:
   (1) Working as an extension of the teacher, but working directly with parent and child in a school setting.
   (2) In child's home: neighbor or "big sister" model.
   (3) In day-care facility.

D. Volunteers: usually a community agent who accelerates change.
   (1) Whoever it might be, the person or persons responsible for intervention are dependent upon family functioning.
   (2) The person is influenced by:
      a. Family constellation
      b. Socio-economic conditions

c. Age of child
d. Amount of hearing loss
e. Language of the home
f. Etc.

Process is a definition of goals:

A. Goals cannot be defined without family and community participation.
B. Goals cannot be imposed, but must come from within. Intervener can help construct realizable goals, but they must be in terms of parents' concern.
   (1) Design must be mutual enterprise: parent, agency, intervener.
   (2) Provision must be made for continual reevaluation of goals which reflects changing status of the child.
   (3) Family's adaptation to child and his handicap must enter into goal setting.
   (4) Success at some tasks must be a continuing goal. In order for family to feel success, they must experience success.
      a. Social areas may be more rewarding.
      b. When all else fails, e.g., language, thinking, etc., capitalize upon physical accomplishments.
      c. Intervention with parents depends upon positive reinforcement of them and by them.
C. Variability of community adds another dimension. Present and potential conditions influence management.
D. Continuity must be integral component of intervention.
   (1) Linkage of child-parent to program must be ongoing.
   (2) Only when family is secure and feels a part of the program should linkage be terminated.
   (3) Terminated then only if child is secure also and ready to transfer:
      a. To school

b. To second language

(4) Intervener's role is to assist in the transfer from home to school.

5. Longitudinal assessor (interrelationship of internal and external assessment on a continuum).

Assessment of program objectives should be of prime consideration during the entire project. This consideration should be included during all phases, from program planning through actual implementation. Those involved in assessment would include:

(1) A member of the initial planning team who would assist in setting objectives and devising evaluation models to measure these objectives.

(2) Supervisors of interveners who would assess the performance of the interveners.

(3) Interveners who would assess their own performance with the child and his family.

(4) Major emphases:

a. Child's linguistic competencies.

b. Cognitive development.

c. Affective domain:

(a) Measures of self-concept.

(b) Attitudes toward school.

(c) Ability to cope with failure.

(d) Interaction with peers.

(e) Other related affective behaviors.

d. Information related to the education of hearing-impaired children:

(a) The child's ability to attend and fixate on a speaker.

(b) Use of hearing aids.

(c) Etc.

e. Adjustment of the family to the demands of the handicapped child.

All assessments would be done on a continual basis during the entire implementation of the project. Whenever possible, assessment would be based on systematically gathered objective data.

SUMMARY

In this topic the participants described the roles of the various people who would have contact with the very young hearing-impaired child in a bilingual/bicultural environment. The first and most pervasive contact identified was that of the child with his family. Families of these children need assistance in the form of general information and specific solutions to problems. Also, their efforts in coping with these problems need to be reinforced. Different families will no doubt present different problems, and these problems will require different solutions. Mothers or surrogate mothers will need to function in many roles: the identifier, the coordinator, the interpreter, the evaluator. The father role in the Mexican-American culture is especially important and must be so represented in any remedial plan.

The initial informant will play a decisive role in the success or failure of the remedial plan. His tasks were enumerated, suggestions for accomplishing these tasks were made, and the necessary qualifications, personal and academic, were described.

Moving from the initial informant to the wide spectrum of possible agents who might provide services to the hearing-impaired child and his family, some possible roles and tasks were listed. This listing did not include definitions since these responsibilities would vary from community to community and would need to be defined in a manner appropriate to each.

The discussion concerning home teaching personnel focused on the innate and acquired qualifications needed by these people, although it is pointed out that the process of intervention is the important aspect rather than the person who is performing the services. Various possible patterns of intervention were described as performed by professionals, paraprofessionals, and volunteers. Cautions were admonished concerning the setting of goals, and it was emphasized that these goals must be set by the parents although they will certainly require much guidance and assistance in achieving them.

The last role discussed was that of the assessor. Assessors of any intervention program should provide continual evaluation extending from the planning of services to a child and his

family to the termination of home services and/or the transfer of the child to an external program. The various individuals who would be required to assess some aspects of the program were enumerated, as were the areas of major emphasis.

TOPIC III

FORMULATE BROAD PRINCIPLES FOR THE DEVELOPMENT OF PREPARATION PROGRAMS (ESSENTIAL AREAS—NOT GUIDELINES, NOT PROGRAMS), MEETING THE NEEDS FOR PERSONNEL AS DEFINED IN II.

Programs to train personnel identified in Topic II were to be delineated in this section. The program requirements as they relate to existing preparation programs and community resources were to be examined. Consideration was to be given to ways in which existing programs could alter their procedures in order to provide the preparation required of the new personnel.

1. Responsiveness to demand. Program developers will need to meet the demand for preparation of new types of personnel as identified in II.

   Following a discussion of the terms *essential areas and new types*, it was decided that the person who would be most clearly identified as fulfilling a new role would operate un-

der the title of Child Advocate. The Child Advocate, or Advocates, would give continuity to the services from identification through assessment and intervention and follow-up. It was recommended that the Advocate role be institutionalized and built into the educational system.

The development of a strong, active policy-advisory group was seen as essential for meeting the needs of children within the group. To insure the development and delivery of adequate services, it was recommended that this active policy-advisory group be represented heavily by bilingual/bicultural parents of hearing-impaired children and by deaf adults, especially those of Mexican-American background.

The new areas were grouped under the headings: identifiers, assessors, and interveners. Some of the principles to be considered in the development of preparation programs for various new personnel would be:

Identifiers

A. Appropriate personnel and mechanisms must be developed, both formal and informal, by which children with hearing impairment are surfaced at an early age.
B. Individuals must have a working knowledge of how the microcommunity functions.

Assessors

A. Spanish-speaking audiologists, otologists, otolaryngologists, and teachers of the deaf serving the community would be desirable. It is also recognized that at this time very few of these professionals have a knowledge of or an appreciation for the bicultural milieu.
B. The Child Advocate could serve a mediating function with these individuals.
C. Seminars and position papers may be used to sensitize non-Spanish-speaking personnel to some of the problems of dealing with people from the bicultural situation.

Interveners

A. Concerted effort must be made to recruit speech pathologists, social workers, and teachers from among the Mexican-American, Spanish-speaking population to work with the hearing-impaired, bicultural child.

B. Child Advocate: must have understanding of the areas of:
   (1) Developmental psychology
   (2) Bilingual education
   (3) Hearing loss and deafness
   (4) Language development
   (5) Cognition
   (6) Emotional disturbance
   (7) Awareness of state and local services available in order to provide whatever services the child might need:
      a. Medical
      b. Audiological
      c. Psychological
      d. Educational

C. Teacher

D. Researcher

E. Others, as defined.

2. Programmatic requirements. Define additional skills, competencies and knowledges needed by personnel to serve bilingual/bicultural hearing-impaired children and their families.

The material included in this report is based on the given that the target children have already been identified. This position was adopted because the responsibility for identification will vary from community to community and, therefore, could be any one of several classifications of people. In effect, the program will have to define who will do what and how.

It is conceivable that the skills, competencies, and knowledges needed by personnel may not be of static nature in view of the changing developing child, family, and community. The intervener will necessarily be able to reconceptualize his role when other professions and the community mobilize to impact on this child. The intervener must be fluent in the language used in the home and have additional knowledges, skills, and competencies in five general areas.

A. *Early Childhood Development*
Knowledge of:
(1) Sensory motor development
(2) Social, emotional, and personality development
(3) Language development
(4) Cognitive and perceptual development
(5) Creativity in children

B. *Teaching in the Home*
General knowledge of:
(1) Family structure and relationships
(2) Parent/child relationships
(3) Sibling relationship and peer relationship
(4) Optimizing development of creativity
(5) Behavior modification techniques

C. *Society and Culture*
Knowledge of:
(1) Biculturalism in general
(2) Mexican-American culture in particular
(3) Socio-economic factors affecting the family and the community
(4) Religion of the family
(5) Family structure
(6) Health practices of the family

D. *Bilingualism and Linguistics*
Knowledge of:
(1) Acquisition and development of language
(2) Implications of linguistic theory
(3) Adequacy and inadequacies of work in bilingualism
(4) Competency/performance distinctions
(5) Likenesses and differences of Spanish and English (at all linguistic levels)
(6) Sociolinguistics

E. *Deafness*
Knowledge of:
(1) Implications of hearing impairments and auditory imperceptions on:
a. language acquisitions

b. cognition
c. adaptive behaviors

(2) Basic concepts of the speech and hearing mechanism and their functions

(3) Techniques of stimulation and utilization of residual hearing

(4) Various methods and techniques of developing language for the hearing-impaired

(5) Additional handicapping conditions:

a. visual
b. mental retardation
c. cardiac
d. motor
e. neglect
f. etc.

The "longitudinal assessor" will require a solid knowledge of:

(1) Statistics
(2) Research design
(3) Report writing

3. The interfacing of new personnel preparation programs with existing ones.

Consider the most desirable balance of programs, possible modification of existing programs (undergraduate, continuing education, career ladder, in-service preparation, internship, etc.).

The following is an example of a program which will interface the preparation of new professional personnel and provide a desirable balance of preparation at different levels.

A. *Levels of Preparation*

(1) Supervisor of home teaching personnel: a preparation program at the graduate level admitting individuals with a bachelor's degree in any of the following:

a. Child development
b. Education of the deaf
c. Elementary education

d. Speech pathology
e. Psychology

(2) Home teaching personnel: preparation in pre-service and in-service programs admitting individuals with bachelor's degrees in the above or equivalent areas.

(3) Paraprofessional personnel: basic preparation in junior college programs and/or on-the-job training—admitting:

a. Members of the family
b. High School students
c. Members of the target community

B. *Curriculum* (see Outline in III-2)

All of the above personnel should have knowledge and competencies in these areas but to different degrees and with different emphasis.

In addition to these content areas, strong emphasis should be given to the ethical principles implicit in a program which takes place in the home. Such principles would be concerned with such topics as confidentiality, interference in family matters, etc.

(1) The preparation of supervisors of home teaching personnel should emphasize breadth in all these areas.

(2) The preparation of home teaching personnel should emphasize depth in the areas of early childhood development, teaching in the home, and deafness.

(3) The preparation of paraprofessionals should emphasize specific skills related to these areas.

C. *Selection*

The selective process should allow each family to participate in the choice of the intervener(s).

4. Integration of preparation programs with the existing community resources: inclusion of personnel external to educational agencies preparing personnel, health and social services, schools, welfare, community agencies, etc.

The assumption was that the more active a community

is in the preparation of the personnel, the more able the intervener would be to work with the community's agencies; a high level of interaction may be a desirable spin-off.

A. A focal aspect of a preparation program should be to prepare the facilitator as intervener to use the available community resources.
   (1) He should be knowledgeable in preventive measures and where they are available:
      a. Inoculations
      b. Hearing evaluation
      c. Etc.
   (2) He must know appropriate modes of referral to existing agencies and services. (He needs to do the red-tape activities, not the parents.)
      a. Medical care
      b. Dental care
      c. Well-baby care
      d. Nutritional information
      e. Etc.
   (3) The intervener should be prepared by inclusion of resources in the preparation programs. The agencies, in effect, take on the responsibility for preparing this person.
   (4) The intervener needs to be knowledgeable in ways of preventing duplication of services. He needs to know how to avoid jurisdictional disputes by developing cooperative attitudes.
   (5) The intervener needs to understand the family and the child and how best to work with the agencies to attain their goals.

B. *Preparation*
   (1) The preparation may be developed according to one of several models or a combination of several or all.
      a. Clinical, which has three important stages:
         (a) A professional model of acceptable practice.

(b) Practicum experience with respect to model provided by professional.
(c) Student performances evaluated and modified where necessary.

b. Didactic lectures where theory is the emphasis.
c. Apprenticeship, a team relationship in which on-going supervision provides the basis for underlying principles. Supervision may be accompanied by lectures.
d. Team where someone who is doing the role well demonstrates. Importantly, the team helps develop the underlying principles.

Of critical importance to all procedures is that the person is guided in seeing what principles operate and why, so that he can modify according to situational demands. Principles must be imparted with skill in order for persons to adjust to vagaries of the situation.

(2) The means to achieving the preparation could follow several formats:
a. Intensive short courses.
b. Videotape.
c. Laboratory-type, whereby lectures are followed by related experience.

(3) The preparation must be related to the community where the service will be rendered. Communities vary due to cultural mores, resources, individuals, etc. The program for preparation must be with a similar community where the intervener plans to apprentice, intern, etc.

C. *Philosophical aspects*

(1) Person must be prepared to handle accountability and attitude demands of the culture.
(2) Preparation needs to build the intervener's self-esteem so he may help to develop same in family and child receiving his services.

(3) Intervener needs to understand the effect of expectancy on interaction:

a. Development of realizable objectives.
b. Reinforcement modes.
c. Effect of affect.

D. Preparation program must expect person to demonstrate skill.

5. Responsiveness of preparation programs to new program concepts and current research findings (advisory committees, on-going evaluation, etc.).

The participants felt that a general lack of adequate responsiveness to new program concepts prevails in all preparation programs. Recognition is given to a need awareness and an improved degree of social conscience; however, to date, response lags behind the need.

Further discussion identified the following as being vital to the development of an effective preparation program:

(1) Adoption of an attitude of responsiveness to change.
(2) Utilization of new program concepts, research findings, needs, and opportunities.
(3) Acceptance of professional, paraprofessional, laity, and family disciplinaries as interveners.
(4) Recording of program data in new and innovative ways so as to allow interpretation by others without unnecessary duplication.
(5) Acceptance of program failure and willingness to initiate change.
(6) Adoption of successful aspects of other existing programs to avoid "reinventing the wheel" in principles for development of preparation programs.

Identification and utilization of existing program segments that have applicability to new programs.

(7) Development of rapid feedback mechanisms so as to modify and/or change programs as soon as the need becomes apparent.

(8) Longitudinal involvement of the target audience in basic design, research, etc., that precedes program operation.
(9) Avoidance of unnecessary program duplication by multiple government, public institutions, and private institutions.
(10) Appropriate expectations and standards for measurement, i.e., not to be satisfied with quantity without quality measurement.
(11) Understanding of and respect for the basic rights of the child and his family, e.g., protection from intrusion of privacy.

The participants concluded that those involved in preparation programs have lagged in the acceptance of new program concepts and research findings primarily because of the inability to relate to principles which were identified, such as:

(1) The lack of attitudinal change.
(2) Failure of existing programs to adopt new program concepts and research findings, including the lack of mechanisms for incorporating new findings into such programs.
(3) Failure to adopt effective concepts of other existing programs.
(4) Failure to recognize specific differences in children.
(5) Failure to incorporate longitudinal involvement of the target audience in basic design, research, etc., that precedes program operation.
(6) Failure to identify specific segments of a program which have shown effectiveness.
(7) Failure to establish appropriate expectations and standards for measurement of program effectiveness.

SUMMARY

In this topic, the participants were concerned primarily with the development of new types of personnel and the essentials

which must be considered in order to meet the special needs of the hearing-impaired child in the bilingual/bicultural setting. The one assertion that appeared from all the groups was that personnel for these new roles must be recruited from the Mexican-American culture, and concerted efforts must be expended in this direction. The emergence of the Child Advocate was highly recommended and suggested as a liaison between the child and family and all the specialized personnel who may have contact with them. It was highly recommended that preparation programs secure the services of policy-advisory groups which, too, would be predominately composed of members of the Mexican-American community, including hearing-impaired adults of that group. New types of personnel were identified, and their requisite areas of preparation and levels of competency were delineated. Procedures for integrating these new roles into the existing community services were described with cautions as to the preparation and knowledge required in order to avoid duplication or overlapping of services. The last section was concerned with the problem of acceptance of new program concepts and research findings. Possible reasons for lack of acceptance and positive suggestions promoting acceptance of new programs were suggested.

TOPIC IV

SPECIFY AREAS FOR EVALUATION: (PERSONNEL PREPARATION PROGRAMS AND SERVICE PROGRAMS).

Areas amenable to evaluation were to be examined in this section. Areas identified included preparation programs at colleges and universities, as well as non-university/college programs. Also to be explored from an evaluative standpoint was the impact of the intervener with the family and the long-term development of the child served by the intervener. The impact of the intervention program on the community was also to be examined in light of evaluative techniques.

1. Preparation program (higher education) as evidenced by the performance and attitudes of the intervener.

   It is recommended that a model for evaluation be developed by the training programs interested in making an impact upon the education of very young hearing-impaired children from bilingual/bicultural backgrounds. The programs must provide for systematic evaluation of each aspect

of its developmental service and research components as a condition for support. Formative and summative evaluation should be conducted not only on the preparation program but also on the impact of the program on delivery systems, the evaluation of the impact of the interveners, and of the family on the child.

A. *Evaluation of acquisition* of competencies, knowledges, understandings, and skills as delineated in I.

B. *Quantitative aspects*

(1) The increase in the number of Spanish-speaking individuals certified to teach deaf children within the area.

(2) The increase in the number of speech therapists who are fluent in Spanish.

(3) The increase in the number of appropriate referrals from:

a. Pediatricians
b. Otologists
c. Audiologists
d. Social workers
e. Individuals in the community of the hearing-impaired children from bilingual/bicultural environments at an early age

(4) The increase in the number of children within this population wearing hearing aids.

(5) The increase in the number of children receiving educational and speech and hearing services.

C. *The establishment of an active advisory group*, reflecting strong parent and deaf-adult involvement.

D. *Program effectiveness*, the extent to which the program helps the child approximate normal levels of development.

E. *Assessment of change* of attitude of:

(1) Teachers
(2) Parents
(3) Other interveners

2. Alternative programs (non-university/college) for the

preparation of personnel including specific parameters of these programs.

Any program will need to have an individual who is responsible for evaluation procedures. Areas that would require evaluation are:

A. Professionals and paraprofessionals in non-university/college based programs.
   (1) Specific goals for these individuals.
   (2) Skills
      a. Teaching procedures.
      b. Testing procedures.
      c. Methods:
         (a) Lectures/readings.
         (b) Case history studies.
         (c) Direct observations.

B. Family
   (1) Attitudinal changes.
   (2) Skills in:
      a. Providing meaningful experiences.
      b. Utilizing these experiences for optimum learning.

C. The effectiveness of the use of mass media and materials in:
   (1) Identifying target children.
   (2) Instructing parents.

3. Interaction of intervener with family constellation.

The evaluation subtopic, "Interaction of intervener with family constellation," was translated into the following question:

How shall the effectiveness of the interaction of the professional and paraprofessional as intervener (person having periodic contact—a specific purpose) with the family and the hearing impaired in programs and services be assessed?

A. *Evaluation* in terms of:
   (1) Achievement of goals for the particular type of intervention being employed as judged in terms

of specific behaviors for the child/family and the intervener.

(2) Relationship of the particular type of intervention to:
   a. Diagnostic recommendations.
   b. Needs of the family.
   c. Any other type(s) of intervention that may be occurring during the same period of time.
   d. Its contribution to the child's cognitive, language, and social development, etc.

(3) Demonstration by the child in his interaction with the intervener of specific behaviors which can be identified by observers (e.g., members of a site team) as making progress toward the general goals/purposes of the particular type of intervention.

(4) Demonstration by the intervener in his or her interaction with the child/family of:
   a. Rapport.
   b. Appropriate techniques for the reinforcement of behavior.
   c. Sensitivity and adaptability to changes in child's/family's moods and responses.
   d. Involvement of family members who are present in appropriate ways of working with the child.
   e. Setting of clearly understood and reasonable expectation through sequentially arranged and specific tasks.
   f. Modification/variation of tasks and techniques when appropriate, but without losing sight of the goals of the intervention.

(5) Maintenance of adequate records, including:
   a. Documentation of the child's/family's progress toward the goals/purposes of the particular type of intervention.

b. Problems encountered.
c. Techniques for solving the problems.

B. *Possible methodological approaches:*

(1) Observation of the intervener when engaged in the interaction with the child/family, using rating scales of various types and descriptive reports by a site team (direct).

(2) Interviewing of members of the family with regard to the quality of the services provided to the child/family by a site team (indirect).

(3) Analysis of records:

a. Diagnoses.
b. Number of home visits by various interveners.
c. Case and status reports which include data on the progress of child.
d. Follow-up on recommendations made by interveners, by family, and/or other interveners.
e. Follow-up on requests/needs identified by the family, by the interveners.
f. Attendance of child in special programs, etc. (indirect).

4. Longitudinal assessment of developmental sequence in children served by the personnel prepared by programs.

A. The areas of longitudinal assessment of the children for the purpose of evaluating the effectiveness of the programs are:

(1) Sensory-motor development.
(2) Social and personality development.
(3) Language development.
(4) Cognitive development.

B. The assessment should be made every six months at the maximum.

C. Evaluation of the program might include comparison of the children's progress with that of a control group if deemed necessary by the organization setting up the program. This could be accomplished by identifying

similarly handicapped children from other geographic areas who have not participated in such a program.

5. Impact of preparation programs on community (including the community's acceptance of responsibility for programs).

This is an elusive item to measure, but it may be evaluated through items such as attitudinal change as related to some type of action. Its spin-off effects may also be measurable items.

A. *Attitudinal Change*

(1) Community

a. Earlier identification of hearing impairment.

b. Provision of comprehensive plan resulting in reduction of level of services required:

(a) From custodial to inclusion in community-based special education.

(b) From special services to mainstream of regular education.

c. Acceptance of responsibility.

Activities emerge that were not forced upon agencies, e.g., Public Health Department provides more services—immunization, hearing aids, etc.

d. Attitudinal change toward the deaf:

(a) More job opportunities.

(b) More programs for hearing impaired that never before existed.

(c) Spin-off: prestige may be associated with program.

(d) New resources develop: introduction of more health and social services.

(e) Agencies requesting services seek help more frequently.

(f) Agencies delivering services have help requested and delivered more often.

(2) Public Interest

a. Broad base of community support.

b. Replication of program.
c. Community may be ready to fund program.
d. Interest of people asking to participate.
e. Professional and paraprofessional: application increase.
f. Volunteer interest.

B. *Funding*

(1) Amount and source of funding.
(2) Purposes of funding.
(3) Joint funding.

SUMMARY

The importance of the evaluation of all aspects of programs was stressed in this section. In addition, suggestions were provided for evaluative methods and techniques. Some of the areas specified for evaluation were difficult to assess, for example, "attitudes," but the need to evaluate changes in attitudes is reflected in the reports of all the groups. Quantitative items will require accurate record-keeping to document increases in the number of personnel, referrals, community agencies offering services, and in the sources and amounts of funding. Other evaluative techniques would include demonstration of skills and competencies, observations, interviews, and checklists. Complete evaluation will require some manner of assessment for every procedure and person who has contact with the hearing-impaired child. Evaluation will require also a thorough assessment of the child's strengths and weaknesses. It is essential to evaluate the extent to which the child achieves the goals set by his parents, and it was emphasized that the setting of these goals is the privilege and responsibility of the parents, not the personnel whose obligation it is to provide the services requisite for the goals to be met. The need for longitudinal assessment of the child's progress was stressed.

TOPIC V

DELINEATE IMPLICATIONS FOR CHANGE.

In this section the participants were to explore areas that would require change if the proposed intervention program were to become a reality. A list of topics was presented for initial consideration with the participants being instructed to elaborate on the list.

A. *Interdisciplinary approaches*

(1) Types of personnel, preferably from the bilingual/bicultural community:

a. Professional personnel.

(a) Teachers

(b) Medical diagnosticians

(c) Educational diagnosticians

(d) Mediators

b. Paraprofessional personnel.

c. Career-ladder personnel.

(2) Preparation of personnel—field participation and/or practicum experiences an essential component of any preparation program.

a. University programs.
b. Interdisciplinary workshops and programs of instruction within on-going teacher preparation programs.
c. Career-ladder programs—continuing education toward credentialing while still functioning as intervener.
d. Competency-based field—degree of paraprofessionals.
e. Apprenticeship to excellent practicing teacher.

B. *Administration of service program*
(1) Local community must assume responsibility. May be a regional support in some areas depending upon size of target population.
(2) Needs to be as close as possible to mainstream of community.
a. Some local agency, e.g., the public schools, will need to assume leadership. Educational-based programs are more feasible than institutional setting.
b. Fringe disciplines are not to be discouraged if accountability can be maintained within the agency designated above (a).
(a) If people feel it is *their* project, they maintain interest.
(b) Distance from population decreases interest.
c. Program needs continuity.
Local on-going management can best maintain the continuity.

C. *Legislative needs*
(1) Legislative mandating of agencies serving the child and family to accommodate to their bilingual/bicultural situation.
(2) Legislation for early identification and follow-up.
(3) Authorization and allocation of funding for programs.

D. *Funding*
   (1) Funding at local level most desirable.
   (2) Interagency funding possibilities should be investigated.
   (3) Federal funding, if needed, should be considered only a catalyst to initiate programs and demonstrate the need for such programs.

E. *Advisory Committees and Cooperative Councils*
   (1) Need representation at state and local levels.
   (2) Need representation from:
      a. Medical profession
         (a) Obstetricians
         (b) Gynecologists
         (c) General practitioners
      b. Health services
         (a) Audiologists
         (b) Speech pathologists
         (c) Linguists
      c. Educational representatives
      d. Cross disciplines
         (a) Social workers
         (b) Court system
         (c) People who have any contact with 0-4 child and the family
      e. Representatives of target population
         (a) Deaf people
         (b) Parents (bilingual/bicultural)

F. *Research*
   (1) The need for more research and documented data on the growth and development process of the child from conception with emphasis upon other parameters, such as the sensory influence of bilingualism and biculturalism.
   (2) The effect of research upon programs and the efficacy of data dissemination.

G. *A Schema* for programs at any level would necessarily include at least two levels:

(1) The conceptualization and planning structures.
Input from two areas:
   a. The target community, including parents of the hearing-impaired children, as well as religious and political leaders, for development of overall goals and procedures for meeting these goals.
   b. The specialists for specification of program content and developing materials.

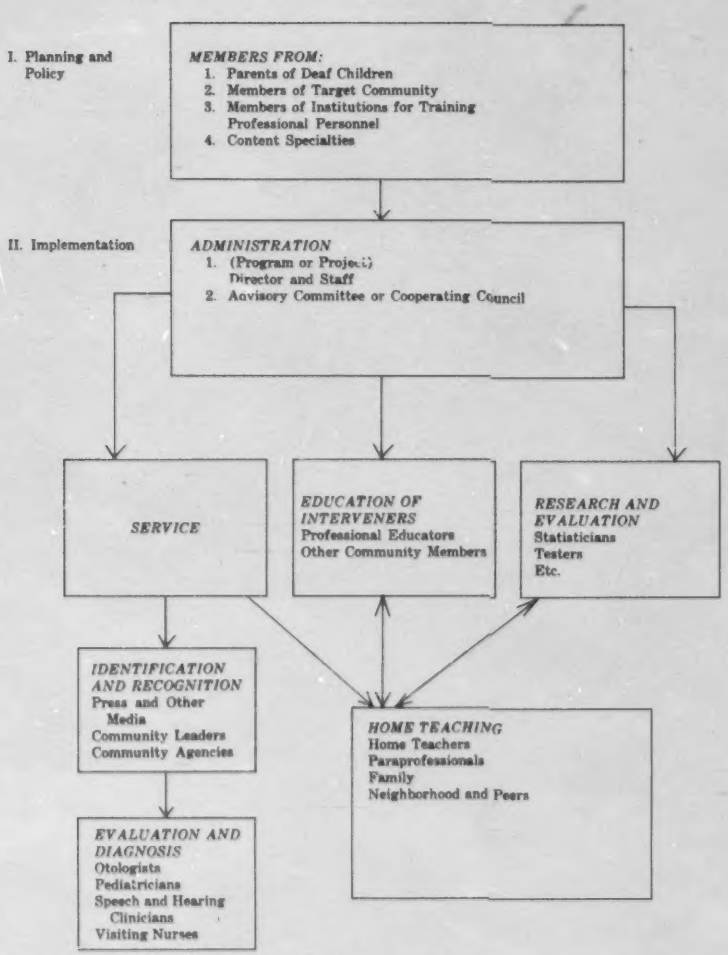
(2) The implementation structures—will vary from community to community and may be composed of groups of agencies and/or persons.

(3) Diagram on next page.

SUMMARY

The preceding format of assigning a subtopic to each group was discontinued for Topic V, and this chapter is a composite of the reports of all the groups who discussed this topic simultaneously. Suggestions for discussion were made with the hope that the participants would expand these and contribute ideas and considerations that otherwise might not have been expressed. Some of the subjects outlined appeared in all the reports, while others were specified by only one group.

There was great concern expressed by all the groups in regard to the need for legislation mandating services for 0-4 year-old hearing-impaired children from bilingual/bicultural backgrounds. The need for a variety of programs to prepare personnel to serve the children and their families and the need for leadership and advisory services from the bilingual/bicultural community were stressed. There was consensus also stating that preparation programs at all levels be competency-based and contain large field participation components. It was suggested also by more than one group that intervention programs be administrated at a local level, as close as possible to the target popuiation, and that any program for very young children should be part of a long-range plan involving other personnel and agencies. The need for more research and more efficient dissemination of research findings was cited, and a schema for the conceptualization and implementation of intervention programs was suggested.


I. Planning and Policy
MEMBERS FROM:
1. Parents of Deaf Children
2. Members of Target Community
3. Members of Institutions for Training Professional Personnel
4. Content Specialties
II. Implementation
ADMINISTRATION
1. (Program or Project) Director and Staff
2. Advisory Committee or Cooperating Council
SERVICE
EDUCATION OF INTERVENERS
Professional Educators
Other Community Members
RESEARCH AND EVALUATION
Statisticians
Testers
Etc.
IDENTIFICATION AND RECOGNITION
Press and Other Media
Community Leaders
Community Agencies
EVALUATION AND DIAGNOSIS
Otologists
Pediatricians
Speech and Hearing Clinicians
Visiting Nurses
HOME TEACHING
Home Teachers
Paraprofessionals
Family
Neighborhood and Peers

CONCLUSION

It appears that in any program being developed to prepare personnel to service hearing-impaired infants from Spanish-speaking homes, certain considerations are pervasive and bear repeating. The most common exigency identified by the groups was that of early identification and simultaneous offering of supportive services to the hearing-impaired infant and his family. Mandatory legislation was suggested as one possible method of providing this essential component in the ultimate rehabilitation of hearing-impaired children.

Another equally important factor is the need for total family involvement in the program for the handicapped child. How this involvement is fostered has a critical influence on the ultimate success of the intervention program. It is imperative that personnel providing any services have, in addition to the required skills, respect for the target population as a culture, knowledge of the Mexican-American culture including its language, history, and family structure, and preferably be members of the culture. A caution was clearly issued in this workshop concerning the setting of goals for the children: the servicing personnel should describe and explain alternative edu-

cational plans and procedures, and should proffer advice and relevant information if such advice is sought, but the actual goal setting should be the option of the parents. Some aspects of these important considerations are listed in Appendix A.

Another implication throughout the reports is that there are many types of programs and levels of personnel whose services can be very beneficial to the child and his family, and that institutions or agencies contemplating the developments of such programs should be open-minded in their conceptualization of the possible roles to be played by the various members of a remediating team. Concomitantly, programs should contain appropriate structures to provide for supervision, evaluation research, and change. In addition, it is essential that programs be counseled by advisory groups consisting of members of the Mexican-American community, the adult deaf, parents of deaf children, and appropriate professionals.

The reader is reminded that this report is the product of a group of people representing various disciplines relative to the growth and development of young children who have thoughtfully considered the needs of hearing-impaired 0-4 year-olds in bilingual/bicultural environments and have suggested principles upon which programs designed to meet the needs of these children could be developed. It is hoped that this report will stimulate the initiation of a variety of such programs and that the problems encountered, their solutions, and the success or lack of success will be shared among the participating institutions and agencies.

APPENDICES

Appendix A

GOAL SETTING CONSIDERATIONS

There are certain issues that need to be discussed and positions that need to be taken relative to these issues before appropriate procedures and methods are specified. These issues relate to the goals and purposes of a program and are as follows:

1. To what extent, if any, can and should any group of professional persons set educational and other goals for individual parents or ethnic groups?
2. If parents seek professional advice, should they be advised to set the goal of bilingual/bicultural education?
3. Is this goal realistic in terms of the hearing-impaired child?
   a) Is it more difficult to teach the hearing impaired two languages than to teach them one?
   b) Should both languages be taught even if it is more difficult?
4. If the goal of bilingualism is selected for the hearing impaired, should the initial emphasis be on the language spok-

en in the home or should the period of language readiness be used to teach the language of the large community?

Appendix B

ASSUMPTIONS DEVELOPED THROUGH DISCUSSIONS ON I-4

The effect of bilingual/bicultural environment combined with hearing impairment on the pacing of the developmental sequence with reference to critical periods for acquisition.

A. Bilingualism is a goal of education because most children dealt with are not actually bilingual. A child can be bilingual without being bicultural.
B. There are sequential developmental stages and during these stages there is a critical period for learning.
C. In dealing with children 0-4, conception was considered as 0.
D. The family constellation was considered as the most important personnel with the greatest sphere of influence on the total development of the child.
E. Growth and development proceeds in a predictable and orderly fashion.
F. Environmental factors can adversely influence the developmental rate and the degree of maturation at any single point in time, but ordinarily does not interfere with normal physical and motor developmental sequence.
G. There are periods of time with reference to developmental sequence and chronological age that are prime for acquisition of specific language and cognitive skills.
H. It is reasonable to expect that intervention of appropriate stimuli can affect a maturation lag or void. The extent of change from a sense of "catching up" is dependent upon multiple factors and is apt never to be complete.
I. The home environment of most children of the target audience is primarily monolingual/monocultural within a greater society environment that is bilingual/ bicultural.
J. The social/economic level of most families of the target audience will be at the lower end of the scale; thereby characteristically having significant needs for interveners

with competencies in diagnosis of a hearing impairment, treatment, education of the deaf, language and cognitive development, and other major aspects of child growth and development.

K. Family camaraderie is characteristic of Mexican-American homes and can be capitalized upon for intervention programs.

L. Family hierarchy of this population must be considered in order to intervene successfully; the intervention process must involve cooperation of the father figure since Spanish-speaking families are predominantly patriarchal in makeup.

M. Most families in the target population are Roman Catholic with a strong affinity to church influence. The environmental influence dictates the importance of church leaders in obtaining support and understanding the importance of intervention programs.

N. Desire or lack of desire for social, lingual, and cultural integration within a large society may for some families deter their being open about having a handicapped child, and their seeking and/or accepting the intervention program.

Appendix C

LINGUISTIC CONSIDERATIONS IN THE PREPARATION OF PERSONNEL TO DEAL WITH HEARING-IMPAIRED CHILDREN AGES 0-4 FROM BILINGUAL/BICULTURAL BACKGROUNDS

by
B. Hoffer
T. Roeper
J. Sachs

Outline

1. Language Acquisition and Development
   *a. Goal is *competence* (basic abilities); *performance* can be improved later.
   *b. Innate ability to acquire language is same for hearing and hearing-impaired.

Major problem is insufficient and degraded input for latter.

*c. Periods of growth occur with optimal potential for language development.

d. Input should be arranged to encourage not memorization, but rule formation.

Grammars of comprehension and/or production are essentially the same.

*e. Acquisition of phonology, syntax, morphology, and semantics each follows a developmental pattern at different rates for individuals. Bilingual acquisition often decreases rate for each language; impaired hearing further decreases rate, perhaps to zero without intervention.

2. Sociolinguistics

*a. Attitudes towards dialects (e.g., Mexican-American) and defective speech (e.g., deaf speakers) can be improved by concentrating attention on competence rather than performance (e.g., pronunciation features which do not affect content).

b. Language interaction involves much more than speech. There are culture specific types of body language, conversation techniques, deference to major speaker, etc.

3. Structure of English and Spanish

a. Phonological, grammatical, and discourse structures of each.

*b. There is a great similarity of basic structure in the two languages.

c. The dissimilarities do cause some interference in learning the second.

Much work has been done in this area, second language acquisition.

* Key concepts for any preparation program, however short.

1. Language Acquisition and Development

a. Competence/performance

Perhaps the most critical distinction necessary for the proper understanding of language acquisition and development is that between competence and performance.

By referring to language as rule-governed behavior, we can define *competence* by the set of rules internalized by the speaker. *Performance* is the actualization of a speech act by use of those rules; thus, performance may be affected by fatigue, illness, attention span, etc., in all speakers and by, for example, inadequate control of pronunciation features by hearing-impaired speakers. A frequent analogy is that of music as copyrighted by the composer (competence) and the individual performance by a musician. The goal in language teaching is the increase in competence; too much time and attention paid to performance may critically decrease competence development. Only a well-trained observer can ascertain whether an individual's defective performance indicates defective competence.

b. Innate capacity for language acquisition

The innate capacity for language acquisition is—all other things being equal—the same for hearing and hearing-impaired children. The basic problem for the latter is the insufficient and defective verbal input. The language acquisition mechanism that all humans have needs to be "triggered" into operation by exposure to natural language, by "conversation" in the sense of language interaction. This mechanism is apparently not dependent on intelligence, at least above a certain "threshold" ability to receive and process sensory impressions. There are, after all, many stupid people who are quite fluent in one or more languages. The child's ability in language may be independent of other forms of cognitive development. Note here that the child's verbal environment is not the usually supposed well-formed adult sentences; rather, it is replete with sentence fragments, ill-formed input from siblings, etc., and the mother's highly restricted form of speech used for children during the early years. Both well-formed and ill-formed inputs stimulate the acquisition of language in hearing children. The critical points may be the amount of and motivation for language interaction. It should not be

supposed that hearing-impaired children learn differently, that they should be "protected" from other than "adult" language. The mechanism is not formed by the input but is triggered by the input to construct appropriate rules governing output.

c. Critical periods

Periods of growth occur with optimal potential for language acquisition and development. From ages 1-4, on the average, most of the basic structures of the native language are acquired. This is the reason why identification of and language teaching of hearing-impaired children are necessities in the earliest years of life. Language development may be spread over years; recent work in syntax indicates that normal children may have essentially completed acquisition by school age or not until age 11 or 12. It is the initial acquisition and the sequencing of developmental stages that are critical in working with hearing-impaired children. Knowledge of the sequencing is important so that the teacher can be ready to expose the child to the appropriate construction when the child is ready for it. There is evidence that learning in the wrong sequence impedes or actually stops further acquisition.

d. Rule formation

Children learn language from relatively few and often ill-formed speech utterances. Furthermore, they produce utterances they have never encountered before while they are at an early stage of acquisition. This creativity is crucial in at least two ways: (1) it shows the child is indeed learning competence; (2) it shows that the learning is rule-oriented and not mere memorization of patterns. In working with hearing-impaired children, then, their rule-formation can be facilitated by arranging the input to cover different aspects of a rule in a certain period. For example, several present/past tense distinctions might be introduced over a short period, as long as they are the regular (i.e., basic rule) past forms. Note that a form such as "taked" for "took"

is a case of the regular rule applied instead of the exception. Far from being evidence of *lack* of learning, it is evidence that the rule has been *learned*. The exceptions to the regular rule come later. Several ways of encouraging rule formation can be used. Language play should be encouraged. Paraphrasing is a good teaching tool and a good check on competence.

e. Acquisition and development of phonology, syntax, morphology, and semantics.

There are three situations involved in this study: (1) normal monolingual development; (2) bilingual development; (3) hearing impairment. Number 2 shows an expanded length of time for similar development unless extra language contact or teaching is involved. Number 3 shows a further expansion, such that language may not develop at all without special language teaching. Any intervener who may deal with the language problem of the hearing-impaired child from a bilingual/bicultural background ought to be aware of at least the general profile of language development. Since the other language areas follow the same basic principles, there is here given a brief treatment of only phonology. Roman Jakobson and others have shown that there is a hierarchy of phonological features which is learned in the same general sequence regardless of the specific language involved. The last learned are the first lost in minimal aphasia and language is then re-acquired by the original sequence. In teaching pronunciation, this hierarchy ought to be followed. Jakobson also showed that the span of time for total acquisition varies enormously. For example, although the average span for English phonology is age 1 to age 8, some have finished by age 4 and others—who are otherwise average—are still acquiring phonology at age 12. Exactly how bilingualism affects language development is still unresolved, but some interference is obvious. In any case, Jakobson's and Slobin's language acquisition universals are important basic information for language interveners.

2. Sociolinguistics
   a. Attitudes towards speech differences

      The basic fact that all people ought to know about dialects is that all forms of speech are acceptable for particular situations. Just as it is inappropriate to use uneducated backwoods speech in a board of directors' meeting, so it is just as inappropriate to use formal rhetorical English in a friendly poker game. Attitudes toward dialects and defective speech, such as that of some deaf people, can and should be modified toward tolerance. Differences are no evidence of lack of IQ, just as fluency is no guarantee of a high IQ. Sociolinguistics gives an introduction to geographical, ethnic, and stylistic dialects and shows how they are appropriate to their context. The subject can be extended to cover the speech of the deaf in order to sensitize the interveners to the problems met by the speakers. Emphasis should be on the content, a matter of competence, and not on the speech differences, a matter of performance.

   b. Language interaction other than speech

      Linguistics includes the study of body language, gestures, and all the other physical components of communication such as eye contact, distance to stand apart when speaking, etc. All these components differ from culture to culture and from subculture to subculture. A good example is the fact that Spanish speakers generally stand closer together to talk than English speakers. The intervener might be interpreted as an aloof outsider if he or she stands the "English" distance from a bilingual. The dependence on visual modes of communication has raised the awareness of the hearing-impaired child to a higher degree. The intervener can be taught the meanings attached to physical and eye contact, hand gestures, position of head, direction of body, and so on.

3. Structure of Spanish and English
   a. A full course of study for a language intervener ought to include the phonological, grammatical, and discourse structure of Spanish and English. These are the tools

of communication and only by knowing how the tools are sharpened can the language analyst make an accurate study of language acquisition.

b. Spanish and English are related languages, both genetically and structurally. The great amount of similarity in basic structure means that, to some extent, competence in English carries with it competence in Spanish. Certainly the phonology and much of the vocabulary differs; but in semantics and syntax—both much closer to cognitive development—the languages are closely related. Incidentally, if for no other reason than the relative simplicity of its phonology, the hearing-impaired child from a bilingual home ought to learn Spanish first. English has more contrasting sounds and a much more elaborate syllable structure.

c. The dissimilarities between English and Spanish do cause some interference problems, especially in phonology and word formation. The language intervener ought to know these—they are well studied—so that language errors caused by interfering competence can be separated from errors caused by lack of competence. Stockwell and many others have written extensively on this subject.

Appendix D

From: Dr. Janet Hardy
Date: November 1, 1972

I am sorry that I must leave your conference today, rather than being able to stay until its end tomorrow. Perhaps my thoughts about it, and a kind of overview of the problem posed, as I see it, might be of some use to you. For what my impressions are worth, here they are:

I. Before any kind of program can be sensibly devised, the scope of the problem requires definition. In this instance, the scope of the problem involves description, in terms of how many of the children in the "target" population have hearing deficits and to what degree.

On the basis of my experience with a quite large popula-

tion of inner-city Black and White children in Baltimore—where there is much overcrowding and respiratory infection—the incidence of significant hearing loss (i.e., that sufficient to interfere with the normal language hearing processes) is relatively low until one gets to school age; one per cent is probably high. Perhaps you know what the problem is here. If not, then, perhaps the first order of business should be a *pilot study* to determine the frequency so that the program planned may be efficient in terms of personnel usage.

In planning a pilot study, information about available community resources would be necessary for decision making about:

(1) *Screening.*—Are there already facilities for auditory screening of young children? Neonatal screening is, in my opinion, totally inadequate (Marion Downs turned up only four deaf babies in the first 5,000 newborns tested, and in the immediate postnatal period, we missed 27 of 28 rubella children subsequently proved to have hearing impairments). However, screening can be quite reliably carried out by skilled people at four months and less-skilled paraprofessionals by eight months. The use of a risk register can focus attention on children most likely to have problems.

(2) More *definite diagnosis* of the hearing deficit and its course, and of the more general health and developmental potential of the child is necessary where screening indicates a problem. A hearing loss may be just part of a multifaceted problem. Is a diagnostic team available? to people who can't pay?

(3) *Recommendations for therapy.*—Is the child's problem sufficient to require amplification in addition to careful and frequent environmental stimulation? Will intensive speech training be required? Are funds and facilities available for either? They are necessary ingredients of a successful program.

II. *Early Educational Intervention Programs*

These have formed the substance of our discussions during the past few days. This is not really my province, which makes me feel very free to make rather categorical statements:

(1) Such programs for success must be *acceptable* to the target population (i.e., they must be relevant, understandable, and functional).

(2) They must be practical (i.e., have a reasonable cost-effectiveness; which may be something of a problem where the case load is small or the needed auxiliary facilities lacking).

(3) They *must produce tangible results* for the child, his family and the community.

As I judged it, the consensus of the conference had it that in a poor community where English is not the prevailing language, the child must learn the basics of language in his mother tongue. He is dependent to a very large extent on his family as a language model.

His mother, therefore, must become the primary "intervener" in terms of the delivery of language education. This is the system used successfully in many areas of Great Britain, where the health visitors teach the mother (in the new home) how to stimulate language development in her hearing-handicapped infant. Thus, a mother, in one or two sessions a week, is instructed to be a 24-hour-per-day therapist. It works pretty well.

Because of language and cultural considerations, thought should be given to training suitable members of the "target" population to be the *home visitors.* They would be trained by, and under the supervision of, professionals in the education of the deaf. In the Martin Luther King Center in Baltimore, a center for Black mothers and infants, the home visitors who teach mothers in their homes how to stimulate the growth and development of their babies are themselves from the "target" population. They have proved

to be more successful teachers than Whites from a different cultural background.

When the child is old enough for group experience to be beneficial (perhaps 2½ to 3 years), then attendance at a special nursery center, where amplifying and other equipment and personnel can be efficiently deployed, might be planned. Transportation would probably be vital. Such a center, or centers, might be planned around existing bilingual/bicultural educational facilities and have university affiliation. It might serve the dual purpose of teaching the hearing-impaired child, his family, and provide opportunity for training personnel and students. It would provide a transition into the more formal school setting. Spanish would continue to be the language taught.

English would be taught only when the children had established a workable and useful language system—somewhere along in elementary school—some severely handicapped children might never learn English. Because of this, vocational training in Spanish and suitable job opportunities would be required for these children.

Such a program would help to break down barriers to interdisciplinary communication and to cross-cultural, bilingual communication. It would require major input from the "target" population. Therefore, if successful, it would have a high impact not only on deaf children and their families, but on all the children in the target area.

Appendix E

EXCERPTS FROM THE REPORT OF THE EARLY EDUCATION SECTION OF THE TASK FORCE FOR THE KENDALL DEMONSTRATION SCHOOL GALLAUDET COLLEGE*

Audrey Ann Simmons-Martin, Ed.D.

OBJECTIVES

For the Child

a. Locate the High Risk children.

b. Diagnose the child and design an individualized program.
c. Utilize residual hearing to the maximum.
d. Stimulate cognitive ability.
e. Utilize the strength and resources within the child, the family, and his neighborhood.
f. Develop language.

For the Parents or Surrogate Parents

a. Provide group opportunities for parent observation.
b. Educate the parents regarding child growth and development.
c. Give them knowledge of hearing and the implications of its deficit.
d. Strengthen parent-child interaction.
e. Help the parents develop language in a stimulating environment.

*Used by special permission from Thomas R. Behrens, Ph. D., Director, Kendall Demonstration Elementary School for the Deaf.

For the Professional Community

a. Comprehensive early childhood study of the social, psychological, and linguistic behavior of children.
b. Relate these findings for educators, physicians, psychologists and audiologists.
c. Develop materials for identification of additional problems and their relations to hearing impairment.

RATIONALE

The basic assumptions underlying the proposed program are:

a. There is an ideal, if not critical, time for intellectual growth and, therefore, language learning. Psychologists increasingly believe that the experiences of earliest childhood can irreversibly affect intellectual growth and language acquisition (Hunt, 1961). Hence, it is important to insure that the hearing-impaired child is provided experiences necessary to his development.
b. The hearing-impaired child, like his hearing siblings, is biologically equipped to learn language, and like them needs language stimulation (Lenneberg, 1964).

Since his deficit is one that restricts the range of auditory perception, the adults in his environment need to be shown ways to adapt to the deficiency while at the same time providing the necessary quantity of input.

c. All sense perception is trained. Just as a child is taught to look, to feel, to taste, he must also be taught to hear. Auditory signals, the integral part of spoken language, must be meaningful to the hearing-impaired child.

   Babies need interesting things done to them and opportunities to do interesting things that produce interesting results. They need the repeated, intentional efforts that lead babies to learn new skills (Hunt, 1961).

d. The acquisition of verbal communication is dependent upon the presence of adults who positively encourage the child to talk, to learn to label his world, and to respond verbally to speech of others. Evidence suggests that the child acquires verbal skills through his attempts to respond to the verbal productions of others and his being rewarded for these efforts rather than by simply taking in their speech (Gray, 1965). We find it imperative then to reach the adults in the environment in order that they provide the stimulus, the model, and the reward.

e. Learning verbal communication proceeds in an orderly way and it is important that parents learn to reinforce the child's efforts at each stage. Beginning with his earliest vocalizations which need to be shaped, the hearing child's parents set the climate for oral communication (Carroll, 1961). So must the parent of the hearing-impaired child. He too must learn that certain vocal behavior manipulates people and other behavior does not.

f. All sensory stimulation is part of the environmental stimulation and is as important to the young child as essential dietary components. Parents need help to

recognize and seize the opportunities to stimulate the sense modalities.

Not receiving as much positive reinforcement from their hearing-impaired child as from a hearing child, parents need support and encouragement.

Parents, like children, bring a wide range of individual differences to which teachers must be alert.

g. A realistic, warm, personal relationship between the baby and his parents needs to be fostered. Studies have shown that there is a high correlation between maternal deprivation—the time it started and the length of time it lasted—and the subsequent damage to the child (Bowlby, 1961).

h. Bowlby's basic conclusion still stands, that if an unmothered baby gets a mother—anyone to whom he can form a stable and loving relationship—within the first two years of life, progressive retardation of general development may be arrested or reversed. Ainsworth (1962) believes that it is not possible to reverse impairment to certain intellectual and emotional processes which seem to be *specifically* vulnerable to disturbance during early development. These include language and abstraction, the ability to establish deep and meaningful interpersonal relations, and the ability to control impulse in the interest of long-range goals.

i. The work with parents is planned to emphasize items that are relevant to the child's ability. There will be no direct attempt to change the home situation in relation to the family's economic, social, or emotional problems. Parents bring these and other problems to the task and therefore techniques are to be adjusted to fit the parent's needs at the moment.

These assumptions seem valid and appropriate for the development of the early education phase of the Model Elementary School.

ORGANIZATION

The model elementary school should direct its focus from parent, to parent and child, to the child as a person, and finally

to the child's disability. Each of these stages will be dictated by the individual needs of the parent and child. However, the children generally will fall into the following categories:

Group A. High Risk children who range in age from birth to 24 months. The difficulty of diagnosing deafness at this stage of development suggests some will be found to have normal speech and hearing. They will not remain in the program.

Others having multiple handicaps, one of which is hearing impairment, will remain in the program for help with language acquisition but will also be enrolled in the appropriate facility for the additional handicap if available.

Follow-up data will be collected on all of the children referred to the program regardless of eventual placement of the children.

Group B. These children will range in age from 24 to 36 months. Again, the children should be placed in appropriate facilities at the earliest possible date. It is anticipated that those children with conductive hearing loss will be integrated into nursery schools with hearing children.

Emphasis of the instruction is directed to both the parent and child in this group.

Group C. Children who range from three to five years of age will become the focus of instruction with ongoing explanation to the parents and continued opportunity for their participation.

It is anticipated that those children with mild to moderate hearing losses will be placed in the appropriate local facility with hearing children.

Group D. This group includes children from five to eight years of age. Our experience suggests that the terminal age may vary for the children served.

Here the disability of the child creates the focus of attention. This does not mean to say that there is less concern for the child as a child; rather the concern is more intensified and reme-

diation is purposefully directed to the aural rehabilitation aspect.

Since the parents are the first pupils in this projected plan, consideration must be given to their needs as well as to the child's. Deafness is more than a medical diagnosis. "It is a cultural phenomenon in which social, emotional, linguistic, and intellectual patterns and problems are inextricably bound together" (Schlesinger & Meadow). It appears therefore, that parents need emotional support, educational information, opportunities to participate and ventilate with other parents and directed guidance in interaction with their deaf child and he with his siblings.

Parents need support and understanding while at the same time expressing their anxieties, frustrations, or guilt feelings. According to the studies of Schlesinger & Meadow, mothers of deaf children were rated as more controlling, more intrusive, more didactic, less flexible, and less approving or encouraging. Instead of placing the burden of instruction of the child upon the parent, rather it is proposed that the thrust of the Kendall project is to assist the parent in becoming comfortable with her child. Therefore, opportunities for the parent's enjoyment of her child and his enjoyment of her should abound. Since these opportunities should be reality-based, the setting should be "home-like" because it is in the home that the child spends his waking hours.

Counseling for the parents should be both direct and one-to-one as well as in groups where the common denominator is age of child or deafness itself. The entire family complex should be the recipient of the counseling and guidance.

The goal of family participation and education is the development of mothers, fathers, siblings and grandparents who are knowledgeable about children, language development, behavior management, and "parenting." Through activities, meetings and interaction of family, child and professionals, parents gain the attitudes, insight, understanding and skills needed to develop confidence. They acquire competence in assuming responsibility for a stimulating family life which promotes the development of communication skills in the child. The program

should be based on what we can define as the strengths in well-functioning family life.

A caution must be made to be particularly sensitive to the varying concepts of what constitutes good family life that clients will bring to the program, for example, the variations that may grow out of different ethnic and socio-economic origins. Of course, the nurture of higher aspirations where indicated will be fostered.

Obviously, one cannot possibly replicate family life and a mother's care in an outside-the-home setting, but we try to identify what a well-functioning family gives its children that helps them develop satisfactorily and provide those experiences in what depth is feasible.

Parents participate, according to individual need, in the counseling, guidance and educational program that includes group discussion of: 1) parental feelings, 2) reactions to the child's handicap(s) and to the resulting treatment of the handicap, 3) the auditory defect and its implications for training residual hearing, 4) child management, 5) the communication process and language growth, and 6) physical, social, emotional, intellectual characteristics of preschool children.

Group meetings can be helpful to parents in learning about the growth and development of children. Parents also learn that other parents have similar problems and ways to solve their problems. The program should offer opportunities for parents to plan their meetings. The interests of parents and the kinds of information they feel they need to fulfill their parental role determine the kinds of meetings.

Undergirding parent education are some basic principles.

1. Parents are able to learn.
   New ideas to the parents can be combined with information they share with each other.
2. Parents want to learn.
   The growth and development of the young child is of particular interest to them. This content can be divided into many study topics.
3. Parents learn when they are interested.

If they select their topics and activities, they will be more interested in learning.

4. Parents remember what they learn when they *need* the information.
   A recent situation they have experienced will be significant to them in building a positive relationship with their child. They can then use what they learn.
5. Parents learn best when they are free to respond to a situation in their own way.
   Each parent makes his own decision on the basis of comments from a group leader and from other parents.
6. Parents have an emotional experience as well as an intellectual one at a group meeting.
   Feelings are a part of each relationship. Parents must feel free to express their feelings. The group leader helps the group keep a balance of facts and feelings.
7. Parents learn from each other.
   Parents should feel free to discuss what they know, how they feel, and what they want to know. A group leader will emphasize the important points they express and add information they do not have.
8. Parents will have a basis for changing some approaches.
   A series of meetings will help parents discuss, take time to consider, and solve some problems in their family relationships. The leader can suggest ways of applying new ideas.
9. Each parent learns in his own way.
   Parents learn in different ways. The group and its leader allow each parent to accept or reject ideas and to discuss or listen in his own way and at his time. Each person's way of learning is accepted.

(Schmidt, 1971)

While parents are the key to the early identification and early management program, their growth and development cannot be capsuled into a set of a given number of meetings, lessons, lectures, or experiences. The frequency and depth of counseling sessions and parent meetings vary with each case. For some cases it may mean a weekly session, with a teacher

and/or a social worker plus group meetings, for others it may mean comprehensive care of the child for the parent, and for still others a parent "live-in" arrangement might be desirable. Nevertheless, the outcomes to be sought are confident handling of his deaf child by an informed parent who seizes every opportunity to develop the child's language and hence increase his cognitive ability.

THE FACILITIES

The facility needs will vary dependent upon factors such as needs of the parent, age of the child, and place of residence.

Group A

Ideally, the youngest group of children should remain in their own homes and make only weekly visits to Kendall School with their parents. However, what evidence there is (Johns Hopkins Collaborative Perinatal Study) indicates the incidence of sensori-neural loss is as great in the "inner-city" population as in suburbia. Therefore, the concept of ideal may have to be revised to accommodate to those children whose constant environment differs from the "norm."

It should be noted, however, that the socio-economic environment has a reverse effect upon parental reaction. It was Meadow and Meadow who reported the following:

> The social and economic status of the parents of a handicapped child has a far reaching effect on both their initial and their long-term response to disability. For example, the higher the social and occupational level of the family, the higher are the expectations for comparable achievement by their children and the greater their disappointment with a child who is incapable of realizing their hopes.

Nevertheless, in a society where upward mobility and occupational-economic achievement are important, it is entirely possible that both parents, if there are two parents, are employed, hence unable to attend Kendall on a regular basis.

It would seem advisable then to plan facilities for Group A children which could do one of several things:

a. Be on the grounds and parents or surrogate parents come in on a regular basis.
b. Offer comprehensive care while the parents work.
c. Make weekly rounds to the community center near the parents home where parent or surrogate parent attend.
d. Offer "live-in" opportunities periodically for parents or surrogate parents.
e. Send counselor/teachers to day care center where child might be enrolled.

For the parents of all children there should be facilities for small meetings with the social worker or clinical psychologists which would reflect the confidential nature of the meeting and would contribute to putting the parent at ease.

Additionally, rooms large enough to accommodate to all the parents but flexible enough to create warmth for only a few need to be provided for the group meetings. These groups might at one time be only the parents of children in Groups A or B, etc., or they may include parents and families from all four age groups.

The needs for parents of Groups B through D remain about the same as described for the youngest group but the children's needs must be considered.

Group B

For Group B (24-36 months) classes will be brief and only weekly. It is entirely possible that a "wing" of the nursery school could be freed for the one or so hours per week those children would be there. However, the situation refers to the "ideal." Alternatives should also be planned, whereby these children would have some group experiences. Herein lies a dangerous possibility and that is that the child may be too readily put into a group situation. As Papousek (1971) pointed out, that "in comparison with children brought up at home, the children in day-care centers usually show delays in the development of speech, oculomotor coordination, and social behavior, although in somatic and motor development they are equal or slightly better than children in families." He does continue that it is very difficult to differentiate the effects of insufficient rearing conditions from the effects of increased morbidity

in day-care centers, usually reported to be twice as high as in families.

Therefore, if the option is for comprehensive care, caution must be extended to see that warm and maternal input is provided by the caretaker. Furthermore, the large portion of the day, the caretaker is free to relate on a one-to-one basis with the infant. Hence it is possible that the surrogate mother might be responsible for a family-like grouping where the older children are in classes for part or all of the day.

Group C

For children 36-48 months classes should be held for three hours per day at least twice a week. As the child matures and can be separated happily from his family the classes should be five days per week.

Content of the classes should focus on language growth through cognitively directed activities as described above. Experiences which form the basis for language input and discussion occur constantly and the child's environment becomes part of his cu. iculum.

Parents should be provided opportunities to observe the classes and the group discussions can center upon the needs of the children as class members. There may be parents who may continue to need structures as described above to function. That being the case, the structure would of course be planned to meet individual needs.

Group D

Children five years and above should be moving into a full day program for the entire week and the curriculum should continue to be experiential, but the concerns now focus on the phenomena of the world rather than the here and now of the younger child's world. Full use of audition must continue and the other disabilities should receive individual attention as diagnostic teaching indicates. For example, some of the children with short attention span may benefit from behavior modification techniques. Some of the children with limited cognitive ability may need smaller increments with much repetition. At no time should the individual child be sacrificed for the group; however, groups of three and four children from classes of

seven contribute to child learning through peer pressure and motivation. Hence, teacher aides should be an integral part of each class grouping through early primary level.

Parents must continue to attend at least monthly sessions and discussions can focus on the child's needs at the time.

SUMMARY

Early identification must lead to early intervention which provides early amplification for the child and develops parent-child interaction. Parent interaction is the result of the parents' obtaining emotional support, being educated regarding the child's handicapping condition and then being given opportunities to participate with other parents and with his own child. It is the unique opportunities for the young hearing-impaired child's learning which arise in the informal home settings that must be captured.

Once the child is in preschool the environment needs to be structured for the optimum in logical, physical, social and linguistic knowledge acquisition. While language development is the major goal in education of a hearing-impaired child, it is not the source of concept attainment. Concepts are the substance of language and as such must constantly be structured.

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